

**REMARKS**

***Amendment summary***

Upon entry of this Amendment, claims 1, 4, 7-11, 13-33, 36, and 38 will be pending.

Claim 1 is amended to further specify the block copolymer. Support for this amendment is found, e.g., in the paragraph bridging pages 24-25 and block copolymers P-4 to P-6 of Exemplary Manufacture 4 to 6 (beginning on page 77 of the present specification).

Claim 36 is amended due to the amendment of claim 1.

Claims 12, 34, 35, and 37 are canceled.

No new matter is added by this Amendment, and Applicants respectfully submit that entry of this Amendment is proper.

***Support for claimed subject matter in priority documents***

Applicants respectfully submit that at least claims 1, 4, 7-10, 13-15, 17, 19-20, and 25-38 are supported by Applicants' priority documents JP 2001/277521, filed on September 13, 2001, and JP 2002/93943, filed on March 29, 2002 (hereinafter JP '521 and JP '943), at least as described in the table below. English translations of both priority documents were previously submitted with the Amendment filed on October 5, 2005.

Claim	Support
1	JP '521: claims 1, 2, and 3; Paragraph Nos. [0040] and [0059]
4	JP '521: claim 4
7	JP '521: claim 10

<u>Claim</u>	<u>Support</u>
8	JP '521: claim 12
9	JP '521: claim 13
10	JP '521: claim 14
13	JP '521: Paragraph Nos. [0062] - [0067] JP '943: claim 2, Paragraph No. [0010], [0030], and [0036]
14	JP '943: claim 2, Paragraph No. [0010], [0030], and [0036]
15	JP '521: Paragraph Nos. [0062] - [0067]
17	JP '521: Paragraph Nos. [0062] - [0067]
19	JP '521: Paragraph Nos. [0062] - [0067]
20	JP '521: Paragraph Nos. [0062] - [0067]
25	JP '521: claim 16
26	JP '521: claim 17
27	JP '521: Paragraph No. [0039]
28	JP '521: Paragraph No. [0039]
29	JP '521: Paragraph No. [0032], [0035], and [0039]; Examples
30	JP '521: Paragraph Nos. [0032], [0035], and [0039]; Examples
31	JP '521: Paragraph No. [0025]
32	JP '521: Paragraph No. [0035]
33	JP '521: claim 13, Paragraph No. [0042]
36	JP '521: Paragraph Nos. [0040] and [0023]
38	JP '521: Paragraph No. [0046]

***Response to provisional double patenting rejection of claims 1, 4, and 7-38***

Claims 1, 4, and 7-38 are provisionally rejected on the ground of obviousness-type double patenting based on copending Application No. 11/693,524. Applicants respectfully submit that claim 12 is canceled by the present Amendment, rendering this provisional rejection moot with respect to claim 12.

Applicants note that this is a provisional rejection. Accordingly, Applicants will address this rejection, if the Examiner does not withdraw it, when the present application is otherwise in condition for allowance.

***Response to rejection of claims 1, 4, and 7-38 under 35 U.S.C. § 103 based on Wang or Hiwatashi***

Claims 1, 4, and 7-38 are rejected under 35 U.S.C. § 103 based on Wang et al. (U.S. Patent No. 6,838,078) or Hiwatashi et al. (U.S. Patent No. 6,375,932) (hereinafter “Wang” and “Hiwatashi,” respectively).

Claims 12, 34, 35, and 37 are canceled by the present Amendment. Accordingly, Applicants respectfully submit that the rejections of claims 12, 34, 35, and 37 have been rendered moot.

**A. Response to rejection based on Wang**

Applicants respectfully submit that Wang does not anticipate or render obvious these claims because (1) it does not constitute prior art with respect to many of the present claims; and (2) because it does not fairly teach or suggest block copolymers having two or more glass transition temperatures.

Applicants respectfully note that JP '521 was filed on September 13, 2001, prior to the U.S. filing date of Wang (January 16, 2002). As shown in the table above, JP '521 supports the subject matter of claims 1, 4, 7-10, 13, 15, 17, 19-20, 25-33, 36, and 38, and therefore Wang does not constitute prior art with respect to those claims. Therefore, Applicants respectfully submit that the rejection of claims 1, 4, 7-10, 13, 15, 17, 19-20, 25-33, 36, and 38 has been rendered moot, and respectfully request that the rejection of these claims be withdrawn.

The remaining claims subject to this rejection are claims 14, 16, 18, and 21-24.

Present independent claim 1 relates to a cosmetic polymer composition comprising a straight-chain block copolymer having a unit derived from a compound having an ethylenic unsaturated bond, having a number-average molecular weight of  $1.0 \times 10^3$  to  $1.0 \times 10^6$ , and having two or more glass transition points or melting points. The block copolymer is an A-B-A triblock copolymer having a hard block A (a high-Tg block) and a soft block B (a low-Tg block), and comprises (1) at least one block composed of a unit having a hydrophilic group which is at least any one selected from groups consisting of an anionic group consisting of carboxylic acid group, sulfonic acid group, phosphonic acid group and salts of these groups; a cationic group consisting of amino group (including quaternary ammonium salt group), pyridyl group and salts of these groups; an amphoteric ionic group consisting of carboxybetaine group; and a semipolar group consisting of amine oxide group; and (2) the A blocks formed by hydrolysis, quaternization or amine-oxide-forming treatment after polymerization.

Applicants respectfully submit that Wang does not anticipate or render obvious the remaining claims because, as acknowledged on page 6 of the Office Action, Wang does not fairly teach or suggest block copolymers having two or more glass transition temperatures.

Wang does not disclose block copolymers, which are recited in the present claims. All of the polymers prepared in the Examples in Wang are amine-containing random copolymers, which do not have two or more Tg's. The Examples disclosed in Wang teach random copolymers because they employ radical initiators, and do not include the agents necessary to promote block copolymerization. There is also an absence within Wang of any teaching or suggestion that block copolymers are superior to the disclosed amine-containing random copolymers. Accordingly Applicants respectfully submit that not only does Wang fail to disclose the presently recited block copolymer, but Wang also fails to provide a reason to use a block copolymer, as opposed to Wang's disclosed amine-containing random copolymer.

Wang also does not teach or disclose a block copolymer having two or more Tg's. The position set forth in the Office Action is that Wang discloses monomers used to control the Tg of the polymer system (see page 5 of the Office Action). However, the disclosure in Wang does not relate to the Tg of each block of a block copolymer, rather Wang's disclosure relates to the Tg of the polymer system, and Wang's description of the Tg relates to the preferable Tg value of a homopolymer of a long chain alkyl monomer (see column 11, line 13 of Wang).

Further, contrary to the position set forth on page 6 of the Office Action, it would not be obvious from the disclosure of Wang to obtain the presently recited block copolymer having at least two different glass transition points because a block copolymer having a Tg assigned to each block is distinct from a composition that has two or more Tg's as a result of being a composition comprising multiple different polymers, such as the polymer composition in Wang. The Office Action asserted that Wang discloses that the chemical formulation of the film forming composition includes at least two different copolymers, thereby rendering obvious a film forming composition that would have at least two different glass transition points (see page

6 of the Office Action). However, the presently recited block copolymer having two or more Tg's is distinct from, e.g., a composition or blend that has multiple Tg's as the result of the presence of multiple polymers.

Accordingly, Applicants respectfully submit that, as discussed above, Wang does not anticipate or render obvious the remaining claims because (1) it does not constitute prior art with respect to many of the present claims; and (2) because it does not fairly teach or suggest block copolymers having two or more glass transition temperatures. Applicants respectfully request the reconsideration and withdrawal of this rejection.

**B. Response to rejection based on Hiwatashi**

Applicants respectfully submit that Hiwatashi does not anticipate or render obvious these claims (1) because Hiwatashi is ineligible for use as prior art under § 103 with respect to many of the present claims; (2) because it does not fairly teach or suggest block copolymers having two or more glass transition temperatures; and (3) because Applicants have shown in the present specification the unexpected, superior effects of the present invention when compared to amineoxide-containing random copolymers, such as those disclosed in Hiwatashi.

Applicants respectfully note that JP '521 was filed on September 13, 2001 and JP '943 was filed on March 29, 2002, prior to the issue date (§ 102(a) date) of Hiwatashi (April 23, 2002). As shown in the table above, JP '521 and JP '943 support the subject matter of claims 1, 4, 7-10, 13-15, 17, 19-20, 25-33, 36, and 38, and accordingly, Hiwatashi constitutes prior art only under § 102(e) with respect to claims 1, 4, 7-10, 13-15, 17, 19-20, 25-33, 36, and 38. Applicants previously submitted a Statement of Common Ownership with respect to Hiwatashi in the Amendment filed October 5, 2005. Hiwatashi is therefore disqualified as § 103 prior art

with respect to those claims. Accordingly, Applicants respectfully submit that the § 103 rejection of claims 1, 4, 7-10, 13-15, 17, 19-20, 25-33, 36, and 38 has been rendered moot, and respectfully request that the rejection of these claims be withdrawn.

The remaining claims subject to this rejection are claims 16, 18, and 21-24.

Applicants respectfully submit that Hiwatashi does not anticipate or render obvious the remaining claims because, as acknowledged on page 7 of the Office Action, Hiwatashi does not fairly teach or suggest block copolymers having two or more glass transition temperatures, and also because Applicants have shown in the present specification the superior effects of the present invention when compared to amineoxide-containing random copolymers, such as those disclosed in Hiwatashi.

Hiwatashi does not disclose block copolymers, which are recited in the present claims, and similarly does not disclose block copolymers having two or more Tg's. All of the polymers prepared in the Examples in Hiwatashi are amineoxide-containing random copolymers, which do not have two or more Tg's. The Examples disclosed in Hiwatashi teach random copolymers because they employ radical initiators, and do not include the agents necessary to promote block copolymerization. There is also an absence within Hiwatashi of any teaching or suggestion that block copolymers are superior to the disclosed amineoxide-containing random copolymers. Accordingly, Applicants respectfully submit that not only does Hiwatashi fail to disclose the presently recited block copolymer, but Hiwatashi also fails to provide a reason to use a block copolymer, as opposed to Hiwatashi's disclosed amineoxide-containing random copolymer.

Applicants have also demonstrated the unexpected, superior effects of the present invention as compared to amineoxide-containing random copolymers in Exemplary Manufactures 8 and 9 (pages 84 and 85 of the present specification). Exemplary Manufacture 8

is the “Exemplary Manufacture of Comparative Random Copolymer having Amine Oxide Group (Pc-3);” and Exemplary Manufacture 9 is the “Exemplary Manufacture of Copolymer having Amine Oxide Group (Pc-4).” The comparative random copolymer Pc-3 and Pc-4 are the same as the amineoxide-containing random copolymers disclosed in Hiwatashi. From the evaluations reported on pages 101-142 of the present specification, Applicants have illustrated that block copolymer P-5 and/ or P-4, which are within the scope of the presently claimed invention, has properties unexpectedly superior to those of random copolymers Pc-3 and/or Pc-4. Applicants respectfully submit that these unexpectedly superior results support the unobviousness of the presently claimed invention.

Accordingly, Applicants respectfully submit that Hiwatashi does not anticipate or render obvious these claims because (1) Hiwatashi is ineligible for use as prior art under § 103 with respect to many of the present claims; (2) because it does not fairly teach or suggest block copolymers having two or more glass transition temperatures; and (3) because Applicants have shown in the present specification the unexpected, superior effects of the present invention when compared to amineoxide-containing random copolymers, such as those disclosed in Hiwatashi. Applicants therefore respectfully request the reconsideration and withdrawal of this § 103 rejection.

***Response to rejection of claims 1, 4, and 7-38 under 35 U.S.C. § 103 based on Matyjaszewski in view of Hayama***

Claims 1, 4, and 7-38 are rejected under 35 U.S.C. § 103 based on Matyjaszewski et al. (U.S. Patent No. 5,807,937) in view of Hayama et al. (U.S. Patent No. 6,123,933) (hereinafter “Matyjaszewski” and “Hayama,” respectively).

Claims 12, 34, 35, and 37 are canceled by the present Amendment. Accordingly, Applicants respectfully submit that the rejections of claims 12, 34, 35, and 37 have been rendered moot.

Applicants respectfully submit that the presently claimed invention is not anticipated by or rendered obvious by Matyjaszewski and Hayama because the cited references do not disclose or suggest an A-B-A triblock copolymer having A blocks formed by post treatment such as hydrolysis, quaternization, or amine-oxide forming treatment.

The present claims recite an A-B-A tri block copolymer having at least one block having a hydrophilic group and the A blocks formed by the post treatment such as hydrolysis, quaternization or amine-oxide forming treatment.

Matyjaszewski does not disclose any A-B-A triblock copolymers corresponding to the presently claimed invention. Matyjaszewski discloses triblock copolymers, such as Pst-PA-Pst triblock copolymers and PMMA-PA-PMMA triblock copolymers (see column 24, lines 56-60 in Matyjaszewski). However, these disclosed triblock copolymers do not have an A block formed by the presently recited post-treatment.

Hayama does not remedy the deficiencies found in Matyjaszewski. The position set forth in the Office Action is that Hayama discloses a composition having at least two different Tg's because Hayama discloses a hair cosmetic composition including at least two different polymers

having different solubility in water. Applicants respectfully disagree. As discussed above, the presently recited block copolymer having two or more Tg's is distinct from, e.g., a composition or blend that has multiple Tg's as the result of the presence of multiple polymers, such as the composition in Hayama relied upon in the Office Action.

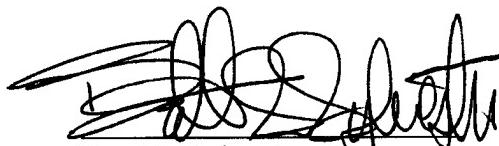
Accordingly, Applicants respectfully submit that the presently claimed invention is not anticipated by or rendered obvious by the cited references. Applicants respectfully request the reconsideration and withdrawal of this § 103 rejection.

*Conclusion*

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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